

ABSTRACT

A light irradiator used as a laser annealing apparatus is provided which includes a controller (9) which controls a solid-state laser (4) to make pulse-on operation by detecting that the angle of rotation of a rotating shaft (7a) becomes $+\beta$ after the rotating direction of the rotating shaft (7a) changes from clockwise to counterclockwise and then make pulse-off operation by detecting that the angle of rotation become $-\beta$, while controlling the solid-state laser (4) to make the pulse-on operation by detecting that the angle of rotation becomes $-\beta$ after the rotating direction changes from counterclockwise to clockwise and then make the pulse-off operation by detecting that the angle of rotation becomes $+\beta$. Further, the controller (9) controls a moving stage (3) to move at a constant velocity in a constant-velocity moving direction, and move over a predetermined distance in a predetermined-distance moving direction after a to-be-annealed object (2) is irradiated with the light beam on a range from one end thereof to the other end in the constant-velocity moving direction, thereby irradiating the whole surface of the to-be-irradiated object (2) with a uniform energy.